

Title (en)

VIDEO ENCODING USING MOTION COMPENSATED EXAMPLE-BASED SUPER-RESOLUTION

Title (de)

VIDEOKODIERUNG MIT BEWEGUNGSKOMPENSIERTER, BEISPIELBASIERTER HOCHAUFLÖSUNG

Title (fr)

CODAGE VIDÉO UTILISANT SUPER RÉOLUTION COMPENSÉE EN MOUVEMENT PAR L'EXEMPLE

Publication

EP 2614641 A2 20130717 (EN)

Application

EP 11757721 A 20110909

Priority

- US 40308610 P 20100910
- US 2011050913 W 20110909

Abstract (en)

[origin: WO2012033962A2] Methods and apparatus are provided for encoding video signals using motion compensated example-based super-resolution for video compression. An apparatus includes a motion parameter estimator (510) for estimating motion parameters for an input video sequence having motion. The input video sequence includes a plurality of pictures. The apparatus also includes an image warper (520) for performing a picture warping process that transforms one or more of the plurality of pictures to provide a static version of the input video sequence by reducing an amount of the motion based on the motion parameters. The apparatus further includes an example-based super-resolution processor (530) for performing example-based super-resolution to generate one or more high-resolution replacement patch pictures from the static version of the video sequence. The one or more high-resolution replacement patch pictures are for replacing one or more low-resolution patch pictures during a reconstruction of the input video sequence.

IPC 8 full level

H04N 19/176 (2014.01); **H04N 19/132** (2014.01); **H04N 19/14** (2014.01); **H04N 19/44** (2014.01); **H04N 19/46** (2014.01); **H04N 19/587** (2014.01); **H04N 19/61** (2014.01); **H04N 19/85** (2014.01)

CPC (source: EP KR US)

H04N 19/132 (2014.11 - EP KR US); **H04N 19/137** (2014.11 - KR); **H04N 19/139** (2014.11 - KR); **H04N 19/14** (2014.11 - EP KR US); **H04N 19/176** (2014.11 - EP KR US); **H04N 19/44** (2014.11 - EP KR US); **H04N 19/46** (2014.11 - EP KR US); **H04N 19/587** (2014.11 - EP KR US); **H04N 19/61** (2014.11 - EP KR US); **H04N 19/85** (2014.11 - EP KR US)

Citation (search report)

See references of WO 2012033962A2

Citation (examination)

- WO 03103289 A1 20031211 - PIXONICS INC [US], et al
- LE GUEN B ET AL: "Motion-Geometry Compensation for Analysis-Synthesis Video Coder", MULTIMEDIA SIGNAL PROCESSING, 2007. MMSP 2007. IEEE 9TH WORKSHOP ON, IEEE, PISCATAWAY, NJ, USA, 1 October 2007 (2007-10-01), pages 300 - 303, XP031224836, ISBN: 978-1-4244-1274-7

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2012033962 A2 20120315; WO 2012033962 A3 20120920; BR 112013004107 A2 20160614; CN 103141092 A 20130605; CN 103141092 B 20161116; CN 103210645 A 20130717; CN 103210645 B 20160907; EP 2614641 A2 20130717; EP 2614642 A2 20130717; JP 2013537380 A 20130930; JP 2013537381 A 20130930; JP 6042813 B2 20161214; KR 101878515 B1 20180713; KR 101906614 B1 20181010; KR 20130105827 A 20130926; KR 20130143566 A 20131231; US 2013163673 A1 20130627; US 2013163676 A1 20130627; WO 2012033963 A2 20120315; WO 2012033963 A3 20120927; WO 2012033963 A8 20120614; WO 2012033963 A8 20120719

DOCDB simple family (application)

US 2011050913 W 20110909; BR 112013004107 A 20110909; CN 201180043275 A 20110909; CN 201180043723 A 20110909; EP 11757721 A 20110909; EP 11757722 A 20110909; JP 2013528305 A 20110909; JP 2013528306 A 20110909; KR 20137006098 A 20110909; KR 20137009099 A 20110909; US 2011050915 W 20110909; US 201113820901 A 20110909; US 201113821078 A 20110909